INTRODUCTION

Rural development is a complicated and long-term process that involves fundamental changes in rural culture on both a societal and economic level. **"Just as the whole universe is contained in the self, so is India contained in the villages." Mahatma Gandhi.** The primary goal of rural development is to build, grow, and utilize existing land, water, and human resources in such a way that the entire population reliant on these resources has an equal opportunity to meet, at the very least, its fundamental needs. People's economic well-being and greater change are both referred to as rural development. Increased participation of people in rural development programmes and decentralization of planning are required to provide the best chances for rural people. Working on these portions will help to bridge the urban-rural divide and raise people's living standards in rural areas. Rural development has been in India since the Vedic era; it is not a new notion. Rural development entails the reconstruction of every area of human life, including a person's social, political, and economic circumstances. A country's development is typically separated into two parts: urban and rural. As a result, growth in both sectors is required. India focuses primarily on urban development rather than rural development. The leaders made significant efforts in this area, remembering the importance of rural development from ancient India.

Infrastructure refers to the amount of money invested in roads, rivers, trains, airways, and other modes of transportation and communication, as well as water supply and public services like health and education (Todaro, 1977). The "physical, capital, and institutions or organisations, both public and private, which provide economic services to and have a significant effect directly or indirectly on the economic functioning of the individual farm firm but are external to the separate, individual farm firm" are referred to as rural infrastructure (Wharton 1967). Agricultural activities, agro-industries, and the overall economic growth of rural areas rely on rural infrastructure. It also provides fundamental services that improve people's lives. Infrastructure development projects, particularly in rural areas, require large initial investments, long gestation periods, a higher incremental capital yield ratio, more risk, and a lower rate of return on investment. All of these factors make it difficult for the private sector to enter the infrastructure market. Furthermore, there are certain characteristics of infrastructure that make it difficult for humans to properly plan,

create, run, and maintain these services. As a result, most infrastructure amenities are provided by the government. There are many strong reasons for the public sector to participate in the supply of rural infrastructure amenities; but, private sector companies can also play a role in the construction of such facilities (Ostrom, 1993).

'Adequate infrastructure enhances productivity and lowers production costs, but it must expand quickly enough to support growth,' according to Summers and Heston (1991). While the exact links between infrastructure and development have yet to be identified, infrastructure capacity is thought to rise in lockstep with economic production. Across all countries, a one percent increase in infrastructure stock is correlated with a one percent increase in GDP. Rostow measured social overhead capital, primarily in transportation and communication, as one of the fundamental pre-conditions for take-off in his 'Stages of Growth' hypothesis (Rostow, 1960).

The word "Rural Development" refers to the general development of rural areas in order to improve rural people's quality of life. It's also a process that leads to long-term improvements in the quality of life of rural residents, particularly the impoverished (Ramesh, 2012). 'The models of development that focus on agriculture also bring forth the significance that infrastructure plays in agricultural development in particular,' according to Mellor (1976). The physical and institutional infrastructures are crucial for the spread of technology in agriculture. Infrastructure is also mentioned as playing a key role in generating enormous multiplier effects in the economy as a result of agricultural growth. According to a World Bank report from 1994, "rural infrastructure leads to agricultural expansion by enhancing yields, farmers' access to markets, and institutional finance availability." Growth's ability to alleviate poverty is also determined by the type of infrastructure put in place. The majority of the poor live in rural regions, and infrastructure supply is directly tied to farm production and non-farm rural employment'. It is estimated that 15% of agricultural produce is lost between the farmhouse and the consumer due to poor road quality and insufficient storage facilities, thus impacting farmers' income (World Bank, 1997). By bringing in new land into farming or expanding existing land utilisation to take advantage of expanded market opportunities, the construction of rural roads in unconnected habitations nearly always leads to gains in agricultural production and output (IFAD, 1995). In a study of 13 Indian states, Binswanger (1993) discovered that investments in rural infrastructure reduced transportation

costs, enhanced farmers' access to markets, and resulted in significant agricultural expansion. Better roads also reduced credit service transaction costs, leading in more loans to farmers, higher demand for agricultural supplies, and higher crop yields.' Fan (1998) expands on these findings, claiming that rural infrastructure is not only a key driver of overall Factor Productivity Growth, but also directly contributes to a major reduction in rural poverty.

The importance of rural development in the majority of emerging countries is understandable. Rural areas are home to the vast bulk of the people. As a result, their backwardness would stifle growth in other industries and the economy as a whole. The development of towns and cities will be conceivable if rural areas are prosperous. The main reason for the decline in demand for many products is rural stagnation.

Historical background of Rural Infrastructure Development

Any action's historical context reveals its origin, which may aid authorities in ensuring its efficient execution in the future. Many rural development efforts were implemented with the primary goal of assisting rural people in their development. It was unfortunate to learn that the majority of them were unsuccessful. Ineffective and unsuitable execution or implementation has resulted in this. Such ineffective projects may not provide a wide range of advantages to society. As a result, the changing subject of rural development and related schemes, which have been implemented by the central government to enhance people's socioeconomic situations, must be carried out properly. To improve rural areas' socioeconomic situations, poverty and unemployment must be eliminated, and appropriate housing, roads, electrification, drinking water, and health and sanitation facilities must be provided. Furthermore, reforms in the educational system and career opportunities are required.

Indian village before British period

During the historical ages, Indian village community remained a notable socio-economic group till the introduction of the British regulation; the village remained the origin of the rural society and economy. Interrelating with economic term, the village has been called as village community having its own sources and funds. The villages adored an independent or self-reliant existence. The activities of the villages were controlled, as far as possible, a self-propelled and self-dependent financial unit.

To be specific, the requirements of the village community were fulfilled either within the village or the nearby villages. The prime economic necessities were food and clothing. The majority members of the village community were farmers and weavers. The additional requirements, such as, farming implements and tools, were delivered by the smith. The simple needs of the villagers could be fulfilled by the craftsmen. The small trader supplies the goods which the village does not produce. Economic dealings inside the village were done in a simple and logical manner. Conventionally, the cultivator used to buy cloths, oil or pot by paying in grain. Other specialized groups of the society were also use to pay a fixed yearly part of grain. This process of mutual exchange has been called as barter system. In the British era money was introduced and began to replace the barter system. Then in the traditional village economy money worked the purpose of wealth, either in the form of gold and silver (Bose, 1993; Charles worth, 1982).

According to Blunt (1931) and Ghurye (1961) "Whatever any particular village community could not produce the adjacent village or villages could supply and, thus, the villages remained interdependent to meet mutual needs. If the needs could not be satisfied within the immediate vicinity, there was a periodical or weekly market of various neighboring villages where the required commodities could be available. These markets were arranged at regular intervals. Moreover, there was the annual fair to which the inhabitants of a number of villages eagerly looked forward to buy commodities of a specialized nature or technique. It is remarkable, that in the traditional village community, the moneylender had an important socio-economic character to perform. The vast majority of cultivators were men of poor means if the crop failed, they starved; and to prepare for the next crop they required money. In this scenario, the moneylenders served a valuable instrument for the poor peasant to sustain in the hours of crisis. But, often, they exploited the peasant beyond all proportions and even forfeited his land. Their usual rates of interest were high and the manner of recovery was very harsh or sometimes it became inhuman. The pre-British village infrastructure had its merits and demerits. The community lived on the principle of self-adjustment. The members shared their prosperity as well as adversity according to prevailing conditions. Their wants being limited to bare necessities, the villagers worked intently to produce them. Self-sufficiency was, more or less, a universal feature except in times of natural calamities. Against such

merits, the demerits were equally bulky. The isolated existence of the village and the still and quiet village life made the economic activities stereotyped. The incentive for material prosperity was lost in quietist attitudes of self-contentment. The immobile peasant, after his seasonal field work, had much time to spare. The craftsman and the artisan, with all his gift and talent, did not try to create a greater demand for his goods. The small traders had no transport facilities to carry village products to distant markets."

Indian village economy during British period

During British rule, rural development strategies and economic policies accelerated the conversion of India's economy into a colonial economy, whose character and structure were determined to begin for the benefit of Britain's economy. They had taken control of Indian political power, but not of the country's socioeconomic system. The British rule pattern was unique in that it altered the Indian rural community's traditional socio-economic structure. To maintain control over the country, the government made no significant modifications to village amenities, instead encouraging the non-cultivating middle class. The colonial legislation in India under the control of the East India Company left some indelible traces on the political, socioeconomic, and cultural lives of Indians. India's industry, agriculture, and trade all suffered as a result of colonialization, and the country became impoverished. Similarly, after railways were built in India's environs, the collapse of rural artisan and cottage industries accelerated. With the entrance of the British in India, local groups began to break down and disintegrate. After the mid-eighteenth century, the adoption of new land rules and subsequent infiltration of urban abusive elements, the introduction of trade and interruption of village self-sufficiency, and the concentration of revenue were the key aspects of villages. The revenue rate was high during the British administration, and in land clearings completed in the second half of the 18th century, lands were frequently sold by the British Company to new mediators since the old revenue farmers were unable to meet the demand for land revenue. A new class of Zamindars emerged as a result of the land revolution. Land was more of a medium for investment for this class of Zamindars than it was a platform for agricultural activity. Furthermore, when the British Company increased its influence over India, the farming structure was accompanied by many trials. Since ancient times, land tax has been a major source of revenue for kings and emperors.

However, over the ages, the ownership form of land has changed. Absolute proprietorship was not known in the pre-capitalist period of the Indian economy. Certain privileges were impacted by all classes related with land. Unlike the ancient and mediaeval periods, the English imperial control resulted in significant changes in the Indian agricultural structure. Despoliation has changed as a result of new land contracts, new land custody conceptions, rental modifications, and increased demand for property revenues. The British Company relied on land revenue as the principal source of funding for the operation of the state since their inception as political leaders. Before the start of the Industrial Revolution in England, the British Company focused on exporting Indian factory-made goods, textiles, spices, and other items to Europe, where these products were in high demand. The Industrial Revolution changed the character of India's overseas trade. The increased demand for raw materials in English industry, as well as the need to gain overseas markets for finished products, came from the large growth of dynamic capacity of producers. Efforts were made to curb and crush Indian producers as a first step.

On the other hand, efforts were made to commercialise agricultural activities in order to speed up the transfer of raw materials and semi-finished commodities that British industry required. The first to be successful were Indian fabric handicrafts. As this industry began to deteriorate, it triggered a chain reaction that resulted in the early discovery of new handicrafts.

Rural development programmes during British period

Rural development in India prior to independence can be studied under two heads. During the British law, British people were not concerned with the economic development of India and so our rural economy got severely hurt resulting in the depressed conditions of the rural community. The primary concern of the management was maintenance of law and order and pooling of revenue, not the rural development. Therefore colonial interests were crucial objectives and the development of socio-economic conditions of rural people was secondary.

Development efforts made by the British Government

In 1899, there was a famine in India, forcing the British government to consider the people of India who were starving to death. The State Administrators were forced to procure food grains and make essential arrangements for their distribution among the

famine-affected people due to repeated famines. This action was performed without any obvious legal justification, as it was motivated only by a desire to curb profiteering and alleviate rural distress.

Removal of Barter system: During the British period, the ancient barter system suffered a significant blow. The British authorities established a cash economy, allowing farmers to grow commercial crops. Agricultural subsistence yielded commercial crops using this strategy. To combat the agriculture crisis during the British time, the government implemented a number of useful initiatives, including irrigation services, cooperative societies, and the formation of a study commission to understand agricultural problems, among others. Various sorts of programmes were introduced, including the following:

Sriniketan Experiment: Shri Rabindranath Tagore began his efforts at rural development in 1908 by forming a youth group in his Zamindari's Kaligram Progana. He works hard to build a group of representative workers who can learn to identify with the general public. This was a fairly inclusive programme that combined aspects of village life such as culture, health, education, and economics.

The Martandam Project: The goal of this experiment was to provide rural people a richer life. It was intended to reflect not just heavenly, psychological, and physical progress, but also economic and social development. The project's most important technique was 'Self-help with friendly expert counsel.' Through Y.M.C.A. centres in villages, nearly a hundred communities were incorporated from the Martandam demo centre [M.S. Randhawa, 1951].

The Gurgaon Experiment: Mr. F.L. Brayne, Deputy Commissioner of Gurgaon district in Punjab State, performed the Gurgaon Experiment because he was motivated by the people's backwardness, poverty, and misery. The establishment of this programme improved seeds, implemented cultivation methods, and so forth. This effort failed to produce leadership in the village community that would continue to work after the village mentors had left.

Gandhian Constructive Programme/Sewagram: Gandhiji envisioned the village as a self-contained and self-sufficient unit. He wanted to solve the problem of rural communities, for which he was well-known, without the intervention of outside agencies. He desired to overcome these issues with the help of rural residents and

local resources. As a result, he devised 18 programmes for the betterment of the people, including the advancement of village industries, basic and adult education in rural sanitation, the elevation of backward scheduled tribes, the upliftment of women, education in public health and hygiene, the propagation of natural language, love for the mother tongue, economic parity, farmer, labour, and student organisation, and so on. He put a specific emphasis on reviving traditional skills including spinning and weaving, as well as old oil presses, grain processing, and leather work. Gandhi's rural reconstruction operations were founded on the truth and nonviolence ideologies. His ideas for rural rebuilding were formally approved, leading to the establishment of the Khadi and Village Industries Program, the Village Self-Sufficiency Code, and trust in the Panchayati Raj and Sahakari Samaj Drive.

Rural Reconstruction Programmes in Baroda: The Maharaja of Baroda was an intellectual and open-minded man who began the Baroda project in 1932. This project/program aims to increase people's "desire to live better" and self-sufficiency.

The Firka Development Scheme: The Firka Development Scheme was a government-sponsored project in Madras in 1946. This project attempted to prepare communities for a brighter, more successful, more cheerful life, in which individual villagers might advance both as individuals and as members of a cohesive society.

The British ignored the essential infrastructure. This isn't to say that no effort was made in this area. However, Indians were directly or indirectly responsible for all of these measures. In restricted locations, the creation and implementation of such programmes were effective and efficient.

Review of Literature and Research Gap

Review of Literature is an important phase of a research work that gives useful track to frame it out. There is a flow of literature in the field of various aspects/indicators of infrastructure. Many theoretical and empirical studies at various levels (regional, national and international) have focused the importance of socio-economic infrastructure in the development of an economy. There is an abundant literature comprising of many empirical studies to measure the role of infrastructure in socio-economic development of a region. The vast majority of research, at all levels, suggests a very strong link between infrastructure and economic development.

- According to Lewis (1955), the development of rural infrastructure is expected to encourage economic growth, create jobs, diversify the economy, and improve the quality of life in London. In a nutshell, it has long been considered that the government's balanced investment opened the path for additional private sector investment. However, it is a fact that the nature of infrastructural investment has never received much attention from private investors on a broad scale.

- Inadequate money, limited executive capacity, poor and inadequate working materials, inefficiency and ineptitude of existing staff, and undue control by the state government, according to Ogunna (1980), are all elements that contribute to local government's poor performance. He indicated that the solution rests in a reassessment of the local government system, particularly in terms of financial connections to the state government and personnel. The implementation, guidance on the application of the civil service, and reform in the local government service made this control of local government evident.

- Nigerian local government and rural development the government's approach to rural development, according to Olowo (1991), is a charade. He claims that the government has succeeded in imposing development programmes on the rural masses, but these programmes have benefited mainly a few wealthy and strong metropolitan elites. He advocates for a rural development approach that includes true participation from rural residents. He will be somewhat autonomous of centralised urban-oriented bureaucratic mechanisms if he continues in this manner.

- In the book "leading issues in Nigerian Rural Development," Mabogunje (1992) accused successive Nigerian governments of being prior regimes, rather than developing rural areas, in his writings on rural development in Nigeria. He believes that this is the overall trend in third-world countries. Many tactics, including "authoritarian handout" from the administration, which prescribed the infrastructure acceptable for rural areas, and two, "development from below," have been explored in the past in an attempt to tackle rural poverty in Nigeria, according to Mabogunje. These initiatives, however, have not been successful; he examines rural development issues such as a lack of coordinated community development programmes, infrastructural manpower issues, and a lack of suitable rural education. He proposes a number of remedies to these issues, including a clear understanding of the notion of community development, integrated development programmes, infrastructure provision, and relevance of rural education to the unique needs and aspirations of rural communities.

- From 1960-61 to 1981-82, Binswanger, Khandker, and Rosenzweig (1989) use panel data from 85 randomly selected districts in India across thirteen states to show that roads play a substantial role on agricultural productivity, fertiliser use, and bank expansion. Private investment responded to state investment with elasticities ranging from 0.26 to 0.90, according to the study, which is the only source of such estimates for rural India.
- In her study "Housing: The Missing Concerns," Tara S. Nair (1999) stated that finance is only one factor of the supply market. Other important relationships include costs, low-cost building materials, skilled and unskilled labour, infrastructure, and, most importantly, an enabling regulatory environment. Many of the supply constraints are insurmountable. Until such reforms are implemented, equal distribution of housing resources will remain a pipe dream for the creation of affordable housing for the poor.
- A study on the impact of MGNREGA on rural employment and migration was undertaken by Usha Rani Ahuja, Dushayant Tyagi, Sonia Chauhan, and Khyali Ram Chaudhary in 2001. The impact of MGNREGA implementation in two districts in Haryana was explored in a research done in the state. One area was agriculturally advanced (Karnal), while the other was agriculturally backward (Mewat). The research looked at the differences in job status, income, landholding size, herd size, and other assets of the sample farm households in these two districts, taking 120 farm families from each area. The impact of MGNREGA within a district has also been investigated in terms of income and employment security, migration, debt repayment, degree of involvement in MGNREGA works, socio-economic status, and so on, by collecting data from 30 participating and 30 non-participating households in MGNREGA works in each district. In agriculturally developed Karnal (13.7 percent) and agriculturally backward Mewat (24.6 percent) districts, there is a substantial variation in the extent of employment through MGNREGA works. Despite being a source of employment, the study found that MGNREGA has been unable to stem migration from the developed world due to higher market wage rates at destinations. Farmers with big landholdings and a significant number of animals are not interested in engaging in MGNREGA projects, according to the report.
- Indira Rajaraman published a study titled Financing Rural Infrastructure in Developing Countries: The Case of India in 2005. The use of a recent non-concessional credit facility for financing rural infrastructure projects by subnational state governments in India is examined in this research. According to the author, loans must be conditioned on upfront

evidence of sectorial or general fiscal recovery mechanisms, connected to the sectorial pattern of usage, and distribution timing governed solely by project concerns. Because projects readily available off the shelf are typically available for better endowed regions, where the demands in terms of technical complexity and community participation are lower, poorer states and less endowed regions within states will require technical assistance to identify financially viable projects. The results of a fixed effects panel model are presented in this research, with the variable explained being the annual aggregate payout under the RIDF system to each state in each year from 1995 to 2001.

- Infrastructure and Economic Growth in India was studied by Debashis Chakraborty and Arup Guha (2009). They believe that re-energizing India's rural economy, which includes both agricultural and non-farm sectors, is critical. A number of recent efforts have been launched with the goal of improving rural infrastructure, which could help in this area. Infrastructure development is also likely to aid in the reduction of poverty. In order to produce a composite index of the infrastructure enjoyed by the states at the village level, the current analysis seeks to create a composite index of the infrastructure enjoyed by them at the state level, which in turn reflects their future growth potential. The analysis is carried out individually for larger and smaller states, and the infrastructure scenario is then compared to state GDP and per capita state GDP growth patterns. Finally, the study acknowledges the possible role of both private and public entities in this area.
- D L Hebbar (2011) undertook a study titled "Growth of infrastructure in Karnataka: a case study of Uttara Kannada District" to look at the function of infrastructure in economic development and, in particular, to highlight its catalytic effect in several aspects. The study's main goals were to identify the major components of current infrastructure facilities in the state across major districts in order to understand Uttar Kannada District's position, as well as to analyse the level of development of various infrastructure indicators across different taluks in the district in order to understand the imbalance in infrastructure development. The author attempted to quantify infrastructure development using key economic and social infrastructure variables such as roads, trains, canals, communication, education, and health. During his research, he discovered that village roads were mostly mud roads, and that the most of them were impassable during the rainy season. There were roads that were badly constructed due to a lack of finances and corruption. Officials misappropriated funds in collusion with contractors, and inferior materials were used. He went on to say that corruption is a part of the civil construction

storey in India, and the Uttar Kannada District was no exception. According to him, the cooperative sector plays a critical role in supporting people in rural areas. There were no co-operative agricultural societies in the district, according to the survey. According to his research, government schools and colleges provide lower-quality education than private schools and colleges.

- Deepak D. Shinde (2013), conducted a study on "Social sector development in rural Maharashtra - a case study of Kolhapur district" to analyse the temporal progress of the social sector, such as primary education, public health, housing, and drinking water, across different sample villages in Kolhapur district. He concluded that improvements in educational, skill, health, and housing conditions are inextricably related to economic development. As a result, the government has placed a greater emphasis on the development of this industry. In the face of stark inequalities across states and the continuance of huge male, female, and rural-urban inequities, he believes that education, particularly basic school, is not good enough. This condition is frequently regarded as a failure of government initiatives to achieve desired results. It is also claimed that the educational expansion technique used has few spillover effects. The number of schools in India and each state has expanded in order to fulfil the growing demand for elementary education in rural and urban areas. Primary schools, on the other hand, are in poor supply in rural and hilly areas. He went on to say that housing has remained a severe issue in both rural and urban areas, particularly for economically and socially disadvantaged groups.
- At the bottom of the pyramid, Mark Esposito, Amit Kapoor, and Sandeep Goyal (2012) discovered some fundamental operating characteristics for long-term health-care company initiatives. These terms include "affordable," "appropriate," and "awareness." Local participation, local skill development, learning through trial and error, technology, and dynamic leadership are all important. The goal of this study was to learn about the basic operational principles of self-sustaining business models that provide healthcare to India's bottom-of-the-pyramid population. The focus of this research was on using published case studies as data sources.

RESEARCH GAP

On the basis of literature reviewed from different sources it has been found that many studies on rural infrastructure and development have been conducted in other countries like

Africa, China etc. But in India there are no many studies have been carried out on Rural Infrastructure Funding-Utilisation and Development. Only few studies have been done on this topic in India particularly in Karnataka State. From the review of literature it is clear that the studies have been done on individual elements of rural infrastructure like education, health, roads etc. But no many studies have been carried out by taking all the elements of rural infrastructure at a time. Therefore this gap will be filled through the present study in Karnataka State particularly in Udupi District analysing the utilisation of rural infrastructure funding by gram panchayats and its impact on rural development.

STATEMENT OF THE PROBLEM

India has more than six lakh villages and the development of India is largely depending on the development of rural areas i.e. villages. There are state level agency, national level agency and international level agency for the rural infrastructure development. But many villages in India are lagging behind in the basic infrastructure facilities and are unconnected with the cities. The poor implementation of the rural infrastructure development projects is one of the reasons for rural backwardness. If each and every plan of the government towards rural development is implemented properly then there will be tremendous growth in the rural areas and it will certainly boost up our economy. But the problem is lack of planning and implementation of rural development projects which has resulted in rural areas lag behind the cities in terms of amenities. Though the funds are sanctioned for the rural development, they are sometimes not utilised properly. The reason behind this may be lack of awareness, corruption and diversion of funds for some other purposes, even though Government is providing wholehearted support to reduce the gap between villages and cities. It has many developmental schemes for the betterment of rural people.

Udupi is a district with 3 talukas blessed with sufficient rainfall, fertile land, forest and the attractive coastal belt. In spite of this, the district has not grown to its fullest extent. There is a close connection between the availability of infrastructure funds and economic development of a region. Though the district is abundant in natural resources it has not been properly utilised due to lack of infrastructure funding. For example the district may be developed in terms of tourism business because of natural advantage but the problem is lack of connectivity. In spite of enough rainfall

and number of rivers, the district has a problem of pure drinking water facility. Lack of proper infrastructure funding will have adverse effect on economic development. Due to heavy rainfall in the district it requires more funds for road maintenance, bridges, electricity and so on. With this background the study can be carried out to find out the awareness and utilisation of rural infrastructure funds and its impact on the development of both people and the villages of Udupi District. Therefore, the problem chosen for the study was "Rural Infrastructure Funding - A study on Utilisation and Development in Udupi district of Karnataka" is very relevant for the policy makers and government.

RESEARCH QUESTIONS

The study aims at answering the following questions-

1. What are the various rural infrastructure funds promoted by Government of India in order to attain rural development?
2. What is the level of awareness among the rural poor with regard to various infrastructure schemes?
3. Are they satisfied with the service quality, measures taken up by the Grama Panchayats and criteria of the schemes sanctioned?
4. What are the factors leads to the development of rural people?
5. What is the impact of rural infrastructure funding on rural poor and the development of rural infrastructure?
6. What is the level of utilisation of funds and development taken place in the villages of Udupi district through infrastructure funding?

OBJECTIVES OF THE STUDY

The present study is conducted to assess the role of rural infrastructure funding in the development of rural areas and quality of life of rural people. This study is carried out to fulfill the following major objectives:

1. To understand the rural infrastructure funding schemes for rural development in general.
2. To assess the awareness level with regard to different infrastructure schemes.
3. To know the various types of funds required for the development of rural infrastructure, sufficiency of funds and criteria for its allotment.

4. To identify the factors influencing the development of rural people considering awareness, satisfaction, utilisation of the fund sanctioned for different infrastructure schemes.
5. To analyse the sanctioning and utilisation of funds and thereby measuring the success and efficiency of Grama Panchayats in the study area.
6. To suggest the measures for the effective utilisation and development of funds based on the findings.

HYPOTHESES OF THE STUDY

The study aims at testing the following hypotheses:

H1 Gram panchayats have created awareness on rural infrastructure funds among rural people.

H2 Level of awareness and satisfaction in relation to various infrastructure schemes has direct influence on development of villages.

H3 Respondents are satisfied with the different infrastructure schemes

H4 There is an association between demographic factors and satisfaction level with respect to infrastructure schemes.

H5 There is difference of opinion regarding utilisation of funds and development of villages through proper implementation of the projects among the respondents belong the different age groups, gender, social class and educational background.

RESEARCH METHODOLOGY

The study attempts to evaluate the rural infrastructure funding of state government and central government through local governments in the Udupi District. Local government includes only gram panchayats of Udupi District. Municipalities are excluded from this study. Both primary and secondary sources of data are collected to know the impact of rural infrastructure funding on the development of rural people and regions. Data is collected through structured questionnaires which are administered on gram panchayats and the beneficiaries of rural infrastructure funds. Secondary Data is collected from gram panchayats for the period of six years that is from 2014-15 to 2019-20.

There are mainly three talukas in Udupi district and all three talukas are selected for conducting the study. In Udupi District there are 146 gram panchayats. Out of these, 25% that is 36 gram panchayats are chosen for the study. In Udupi district there are 25 gram panchayats sanctioned with Gram Vikas Yojana scheme. Out of these 25 gram panchayats, eighteen are selected for the study and remaining eighteen gram Panchayats are selected based on convenience of the researcher. According to the census 2011 there are 177529 rural households exist in Udupi district. For the study 435 rural households are selected.

Table 1

Number of gram panchayats, villages and rural households in each Taluk of Udupi District

Name of the Taluk	Number of Gram Panchayats	Number of Villages	Number of Rural Households
Kundapur	56	98	71170
Udupi	61	86	65960
Karkal	29	49	40399
Total	**146**	**233**	**177529**

Source: Census of India 2011, District Census Handbook Udupi.

At 5% allowable error statistically the sample size for number of rural households in Udupi District is 399. $n = \frac{N}{1+Ne^2}$ Formula is used to obtain the sample size for the study. The sample size is increased from 399 to 435 according to Central Limits theory. The details of sample size are explained in the following table:

Table 2

Sample Size

Name of the Taluk	Number of Gram Panchayats	Number of Villages	Number of Rural Households
Kundapur	14	25	174
Udupi	15	22	162
Karkal	07	12	99
Total	**36**	**59**	**435**

In the study, an attempt is made to measure rural infrastructure funding and development through five vital economic and social infrastructure indicators such as housing, roads, drinking water supply, street electrification and health & sanitation.

Table 3 Validity and Reliability Tests

	Reliability Statistics	
	Cronbach's Alpha	N of Items
Awareness of Rural Housing	.660	4
Satisfaction towards Rural Housing services	.530	7
Awareness of Rural Road schemes	.637	5
Satisfaction towards Rural Road scheme implementation	.802	9
Awareness About Rural water supply scheme	.837	4
Satisfaction towards implementation of water supply scheme	.826	10
Awareness about Rural Street electricity schemes	.911	4
Satisfaction towards Rural Street electricity schemes	.794	6
Awareness about Rural Health and sanitation	.567	4
Satisfaction towards Rural Health and sanitation	.839	10
Development	.670	5
Utilisation	.420	5
Sufficiency of fund	.728	5
Satisfaction about availability of fund	.739	5

The structured questionnaire was developed both in English and Kannada to collect the responses from rural respondents. The expert and research guide provided the suggestions with respect to format, structure, and selection and grouping of variables and scaling. Reliability testing was done on the response received. Respondents from all social classes, genders, age groups, income levels, and educational backgrounds have been given special consideration. Opinions regarding different infrastructure schemes are collected and analysed to assess the efficacy and effectiveness of their implementation. The questionnaire measured in Likert data has been tested for validity and reliability using Cronbach's alpha. 14 dimensions are framed to test the internal

consistency. Almost all dimensions show an Alpha of more than 0.6, which confirms the reliability of the data.

Research Technique Summary for research questions

Because this study is so large and multi-dimensional, it necessitated the use of a variety of statistical and non-statistical approaches to address the research questions. Some are based on Hypothesis, while others are not. The following table divides and summarises the research questions. The following methods have been thoroughly designed and framed by the researcher in order to produce meaningful study outcomes.

Table 4

The table below summarises the many research techniques used in each of the analysis that must be completed in order to meet the study objectives.

Dimensions / Factors in study	Methodology	Techniques Used	Outcome/Applications/ Remark
Demographic Variables	Non- Hypothesis	Descriptive Statistics- Frequencies and Percentages	Nature of rural respondents
Economic variables	Non- Hypothesis	Descriptive Statistics- Frequencies and Percentages	Status and standard of living of rural respondents
Status of awareness about rural amenities	Non- Hypothesis- Analysis on awareness about type different type of infrastructure schemes	Frequency tables, Cross section analysis of Likert scales	Introduction about level of awareness about rural infrastructure amenities based on Gender, Age, Category , and Education qualification
Status of satisfaction level towards rural infrastructure funding and implementation	Non- Hypothesis- Analysis of factors indicating/measuring satisfaction towards infrastructure funding	Frequency tables, Cross section analysis of Likert scales	Find out mindset and expectations of respondents based on demographic variables

Status of satisfaction level towards utilisation of fund sanctioned	Non- Hypothesis- Analysis of factors measuring satisfaction towards utilisation and implementation of infrastructure schemes	Frequency tables, Cross section analysis of Likert scales	Find out the peoples opinion about efficient implementation of schemes
Study of combined effect of all independent variables on dependent variables	Hypothesis based - Analysis of combined effects of all parameters measures awareness and factors indicating satisfaction level about basic infrastructure schemes on overall development	Multiple Regression	Identify the most influencing factors and helps in framing the strategic plan
Gap in awareness among male and female	Hypothesis based - Analysis of difference in awareness about basic infrastructure schemes	t test	Identify the gap and analyse the reasons for the same
Study of difference in level of awareness about various infrastructure schemes among different age groups	Hypothesis based- Analysis of all parameters measuring awareness about different infrastructure schemes	ANOVA& DMRT	Identify the gap among different age-group and find out reasons for the same
Study of difference in level of awareness about various infrastructure schemes among different Education groups	Hypothesis based - Analysis of all parameters measuring awareness about different schemes	ANOVA& DMRT	Identify the reasons for difference among respondents with different educational background

Study of difference in level of awareness about various infrastructure schemes among different Social class groups	Hypothesis based - Analysis of all parameters measuring awareness about different schemes	ANOVA& DMRT	Identify the need and expectation of different social groups
Study of difference in level of satisfaction about utilisation of fund among different Age Group groups	Hypothesis based- Analysis of factors measuring satisfaction about utilisation of funds among different infrastructure schemes	ANOVA& DMRT	Identify the level of satisfaction towards utilisation of funds among different age groups
Difference in level of satisfaction level among Male and Female	Hypothesis based - Analysis of all parameters measuring satisfaction level regarding different schemes	Mann-Whitney	Detect the level of satisfaction towards different infrastructure schemes among Male and Female
Association between Demographic factors and level of satisfaction towards infrastructure schemes	Hypothesis based - Analysis of indicators measuring satisfaction level measured in Likert scale converted into nominal data based on quartile	Chi-Square	Identify the influencing demographic factors and assist in design of rural infrastructure policy
Analysis of target and projects completed	Non Hypothesis- Target, selected beneficiaries and completed projects	Lag percentage, Efficiency percentage, Inefficiency lag, Target achievement ratio	Fund sanctioned, Efficiency, Success rate and Lag
Category wise analysis of status of projects	Non-Hypothesis- Number of selected beneficiaries and completion of the projects	Lag percentage, progress percentage Progress rate	Success of the projects and efficient utilisation of the funds

SCOPE OF THE STUDY

The present study is conducted to analyse the development taken place in the villages of Udupi District through infrastructure funding of local governments (gram panchayats). Rural infrastructure funding through gram panchayats of three talukas of Udupi District is evaluated. The study also aims at analysing the impact of rural infrastructure funding on the development of rural areas and the people of Udupi District. The study restricted to Rural Infrastructure Funding Schemes related to housing, roads, drinking water supply, street electrification and health & sanitation and effectiveness of this is assessed based on level of awareness, satisfaction, utilisation and development in the background of gender, age, education qualification and social class. In this study the focus is made only on the government funding. The private funding on rural infrastructure development is excluded from the study. The urban rural development through municipalities is also excluded from the study. Only Grama panchayats are taken for the study of rural infrastructure funding in the Udupi District.

LIMITATIONS OF THE STUDY

During the course of study there were certain limitations. Those limitations are-

1. Since the study is related to government schemes, it was very difficult to collect the accurate and full information from the gram panchayats.
2. Ignorance of respondents regarding various schemes has led to incomplete information and biased to some extent. So generalising this outcome may not be possible.
3. The rural development factors such as rural housing schemes, rural roads, rural drinking water supply, rural street electrification and rural health and sanitation were considered for the research study. There could be other development indicators other than those selected for the study. All development indicators are not selected due to time constraint and non-availability of data.
4. The awareness level and understanding capacity of rural respondents to all the questions in respect to various rural infrastructure funding schemes may not be up to the mark. So, actual facts regarding utilisation, satisfaction, sufficiency of funds and development might have not revealed by the respondents.

5. The study has been conducted in the rural areas of 3 talukas of Udupi District. Travelling and other expenses for more than 6 months were incurred and borne by the research scholar. The financial constraint was another limitation of the study.

CONCEPTUAL FRAMEWORK

RURAL

According to the 2011 census, "rural sector" refers to any location that fits the following criteria:

- A population of less than 5,000 people
- A population density of less than 400 people per square kilometre; and
- Agriculture employs more than "25% of the male working population."

Origin and Meaning of Infrastructure

The term 'INFRASTRUCTURE' appears to have originated in France in the 19th century, and it was predominantly used to refer to military installations until the first half of the twentieth century. Since 1927, the phrase has been used to refer to the roads, bridges, trains, and other public works that are essential for the operation of an industrial economy, or a portion of one. During the Great Depression of 1929, a new age of American infrastructure began. In 1932, Americans elected a president and congress who believed that the federal government should play a more active role in producing jobs for the unemployed. The new president began with a modest list of infrastructure projects, such as federal administrative buildings, within the framework of J. M. Keynes' freshly formulated macroeconomic theory. He quickly expanded his business to include railway stations, bus stops, post office buildings, irrigation projects, road maintenance and expansion, hydroelectric dams, and rural electrification. Many states have begun planning infrastructure networks in their territory, following the lead of the federal government. Infrastructure development progressed at a breakneck pace. The Second World War intervened, interrupting the flow of initiatives across the country. However, as a result of the war effect, additional infrastructure components were created as new airports, towns, and harbours developed on the map. H.W. Singer was the first to use the term "infrastructure" or "overhead capital" (1951). He associated it with a variety of investments that are not directly productive but aid in the development process. Transportation, power, and irrigation are examples of such investments. The necessity of infrastructure was also acknowledged by Ragnar Nurkse and Gunnar Myrdal (1955).

Transport facilities, public utilities, training systems, railways, power plants, and water works are all included in Singer Nurkse and Myrdal's definition of social overhead capital.

However, the term became popular in the United States during the 1980s after the publication of Choate and Walter's book "America in Ruins," which sparked a public policy debate about the nation's "infrastructure crisis," which was allegedly caused by decades of inadequate investment and poor maintenance of public facilities. The term infrastructure literally means “structure below," or "base." The term is derived from the words "infra" and "structure." Infrastructure is a collection of interrelated structural parts that serve as the foundation for a larger construction. It refers to permanent installations that are used for an extended length of time. The phrase has a variety of connotations in various professions, but it is most commonly used to describe to the basic infrastructure and systems that serve a country, city, or area, such as transportation and communication systems, water and power lines, schools, and hospitals.

In terms of economics, infrastructure is defined as the structural aspects of an economy that enable the production of products and services without being directly involved in the production process. "Any public work dealing to facilities for the usage of natural resources or supply of services, by way of Physical structures or systems," according to the Infrastructure Development Department (IDD) of the Government of Karnataka. Infrastructure is described as the physical framework of facilities that deliver products and services to the general public. Because it directly influences production and consumption, causes positive and negative spillover effects, and includes a significant flow of expenditure, its economic ties are numerous and complex (K. Narindar Jetli and Vishal Sethi). Infrastructure, then, refers to the basic facilities that allow primary, secondary, and tertiary productive activities to operate. It is a precondition for economic growth. While infrastructure is widely regarded as a critical component of economic development, there is no precise meaning of the term in India's current usage. To maintain consistency and comparability in the data gathered and reported by multiple agencies throughout time, a clear understanding of what is covered under the rubric of 'infrastructure' is required for policy formulation, setting sectoral targets, and monitoring projects.

Idachaba (1985) gave the three major and broad classes of rural infrastructures in Nigeria and their main components:

1. **Rural Physical Infrastructures -** The main components are: Transportation facilities (federal, state, local government roads, railways bridges, ferry services, ports and footpaths); Storage facilities (silos, warehouses, cribs, open air facilities etc.); processing facilities (machinery, equipment, building, etc.); Irrigation, flood control and water resources development (dams, irrigation and watering facilities, drainage systems etc.); Soil conservation facilities; Farm electrification.

2. **Rural Social Infrastructures -** The main components are: Health facilities (hospitals, dispensaries, maternities and health centers etc.); Education facilities (primary and secondary schools, teacher training colleges, technical schools, vocational schools, adult educational facilities etc.); Rural utilities (electricity and water supplies)

3. **Rural Institutional Infrastructures -** The main components are: Co-operative societies, farmers' unions/groups, community development projects made possible through rural self-help institutions; Financial institutions (credit societies and institutions, banks, post office, saving banks etc.); Agricultural research facilities (research sub- stations and experimental farms, demonstration plots etc.); Agricultural extension and training facilities; Marketing, crop and animal protection services, and Postal and telecommunication facilities (post office, postal agencies, telephone etc.)

   The National Statistical Commission headed by Dr. C. Rangarajan, attempted to identify infrastructure based on some characteristics. This Note compiles definition of infrastructure from various reports/ notifications of different agencies and concludes with decision taken by the Empowered Sub-Committee of the Committee on Infrastructure on this subject in the meetings held on 11th January, 2008 and 2nd April, 2008 under the chairmanship of Deputy Chairman, Planning Commission.

Dr. C. Rangarajan Commission's Notion of Infrastructure (2001)

The Rangarajan Commission indicated six characteristics of infrastructure sectors, (a) Natural monopoly, (b) High-sunk costs, (c) Non-tradability of output, (d) Non-rivalness (up to congestion limits) in consumption, (e) Possibility of price exclusion, and (f) Bestowing externalities on society. Based on these features (except b, d and e), the Commission recommended inclusion of following in infrastructure in the first stage:

Railway tracks, signalling system, stations

Roads, bridges, runways and other airport facilities.

T and D of electricity

Telephone lines, telecommunications network

Pipelines for water, crude oil, slurry, waterways, port facilities

Canal networks for irrigation, sanitation or sewerage.

The Commission further recommended that considering characteristics (b),

(d) and (e) also, the above list may be extended to include the following in the second stage:

Rolling stock on railways

Vehicles, aircrafts

Power generating plants

Production of crude oil, purification of water

Ships and other vessels

However, the Rangarajan Commission recommended that the list of infrastructure activities should be finalized by the Ministry of Statistics and Programme Implementation (MOSPI) on the basis of the characteristics recommended by them for identification of infrastructure.

Dr. Rakesh Mohan Committee Report (1996) and the Central Statistical Organisation (CSO)

Dr. Rakesh Mohan Committee in "The India Infrastructure Report" included Electricity, gas, water supply, telecom, roads, industrial parks, railways, ports, airports, urban infrastructure and storage as infrastructure. Except industrial parks and urban infrastructure, all these sub-sectors are treated by CSO also as infrastructure.

Reserve Bank of India (RBI) circular on Definition of Infrastructure

As per the RBI, a credit facility is treated as "infrastructure lending" to a borrower company which is engaged in developing, operating and maintaining or developing,

operating and maintaining any infrastructure facility that is a project in any of the following sectors, or any infrastructure facility of a similar nature;

i) a road, including toll road, a bridge or a rail system;

ii) a highway project including other activities being an integral part of the highway project;

iii) a port, airport, inland waterway or inland port;

iv) a water supply project, irrigation project, water treatment system, sanitation and sewerage system or solid waste management system;

v) telecommunication services whether basic or cellular, including ratio paging, domestic satellite service (i.e. a satellite owned and operated by an Indian company for providing telecommunication service), network of trunking, broadband network and internet services;

vi) an industrial park or special economic zone;

vii) generation or generation and distribution of power;

viii) transmission or distribution of power by laying a network of new transmission or distribution lines;

ix) construction relating to projects involving agro-processing and supply of inputs to agriculture;

x) construction for preservation and storage of processed agroproducts, perishable goods such as fruits, vegetables and flowers including testing facilities for quality;

xi) construction of educational institutions and hospitals;

xii) any other infrastructure facility of similar nature.

For raising external commercial borrowings funds, the RBI has defined infrastructure to include (i) power, (ii) telecommunication, (iii) railways, (iv) road including bridges, (v) sea port and airport, (vi) industrial parks and (vii) urban infrastructure (water supply, sanitation and sewage projects) vide their circular dated 2nd July, 2007.

Insurance Regulatory and Development Authority (IRDA)

The IRDA (Registration of India Insurance Companies) (Second Amendment) Regulation, 2008 defined infrastructure to include followings:

(i) Road, including toll road, bridges or a rail system.

(ii) Highway projects including other activities being integral part of the highway project.

(iii) Port, airport, inland waterways or inland port.

(iv) Water supply project, irrigation project, water treatment system, sanitation and sewerage system or solid waste management system.

(v) Telecommunication services whether basic or cellular including ratio paging, domestic satellite services (i.e. a satellite owned and operated by an Indian company for providing telecommunication services), network of trunking, broadband network and internet services.

(vi) An industrial park or special economic zone.

(vii) Generation or generation and distribution of power.

(viii) Transmission or distribution of power by laying a network of new transmission or distribution lines.

(ix) Construction for preservation and storage of processed agro products, perishable goods such as fruits, vegetables and flowers including testing facilities for quality.

(x) Construction of educational institutions and hospitals

(xi) Any other public facility of similar nature as may be notified by the authority in this behalf in the Official Gazette.

Income Tax Department

For an infrastructure company, section 80-IA of the Income Tax allows deduction of 100% profit from its income during initial 5 years of operation and then 30% deduction of profit from income during another 5 years. For this purpose infrastructure covers electricity, water supply, sewerage, telecom, roads & bridges, ports, airports, railways, irrigation, storage (at ports) and industrial parks/SEZ.

World Bank

The World Bank treats power, water supply, sewerage, communication, roads & bridges, ports, airports, railways, housing, urban services, oil/gas production and mining sectors as infrastructure.

MAJOR FINDINGS OF THE STUDY

Rural infrastructure funding schemes and their awareness, utilisation, satisfaction, and development were studied in three Talukas of Udupi District among rural households and GPs. The following findings from data analysis and interpretation are presented in this chapter. The findings relating to the demographic and socio-economic profile of the households are specified first, followed by the findings obtained under each rural infrastructure funding scheme relating to rural housing, rural roads, rural DWS, rural street electrification, and rural health and sanitation, which are classified according to the study's objectives. The research was carried out to learn about the rural infrastructure funding schemes, the various types of funds required for the development of rural infrastructure, the sufficiency of funds and criteria for their allotment, the sanctioning and utilisation of funds and thus measuring the success and efficiency, factors influencing the development of GPs in terms of awareness, satisfaction, and utilisation of funds sanctioned for different infrastructure schemes, the awareness level with regard to different infrastructure schemes and the factors lead to satisfaction with regard to different infrastructure schemes.

- 70.1 percent of households are aware of Grama Sabha meetings, while only 7.4 percent are fully aware of the meetings; 12.6 percent of households are neutral; 7.4 percent of respondents are unaware of the meetings; and 2.5 percent of respondents are completely unaware of the meetings. As a result of the analysis, the vast majority of respondents (70.1%) are aware of Grama Sabha meetings.
- When asked how often they attend Grama Sabha meetings, 80 percent answered they attend them sometimes, 7.6 percent said they attend them often, and 12.4 percent said they never attend them. Finally, the study revealed that the majority of respondents (80%) attend Grama Sabha sessions on sometimes, but not always.
- With regard to participation of rural people and development of villages, 57.5% respondents opined that participation of rural people leads to somewhat development of villages, 22.5% respondents opined that participation of rural people leads to the development of villages to the great extent, 12.4% respondents said that cannot say and 7.6% respondents opined that participation of rural people leads to very little development of villages.

- Basava Vasathi Yojane, Pradhana Mantri Awas Yojane, Devraj Urs Housing Scheme, and Dr.B.R. Ambedkar Nivas Yojane are some of the government-sponsored EWS housing schemes.
- 37.7% of respondents built homes under the Basava Vasathi Yojana, 29.4% built homes under the Indira Avas Yojana, 12.6% built homes under the Dr. B. R. Ambedkar Nivas Yojana, and 7.6% built homes under the Pradhana Mantri Avas Yojana. 12.6 percent of families are unaware of the housing construction scheme. According to the findings, the majority of respondents (37.7%) built residences through the Basava Vasathi Yojana and Indira Avas Yojana (29.4 percent).
- The majority of housing recipients built Terrace Houses (RCC houses), while 32.6 percent built tiled dwellings, according to an analysis of the types of houses built under various housing schemes.
- According to the analysis of public opinion on fund sufficiency, 97.5 percent of respondents believe that money sanctioned under various housing schemes were highly insufficient for the construction of high-quality residences, whereas 2.5 percent believe that funds sanctioned were insufficient. As a result, it is obvious that the majority of respondents shared the same view on the availability of funding for house construction.
- From the analysis of T-test on the Sufficiency of funds on various development schemes, it was found that the funds are insufficient invariably for different development schemes. Moreover a below average level indicates that the scheme funding policies or criteria should be re-looked upon by the authorities responsible for the development of rural ares. The need for funding comes from the Gap existing between the Present status of a given area and the Future developed view of the same area. But if the funds released for achieving this is insufficient, then the objective of Development cannot be met. This is because, it will simply mean that the “Development is in Progress" and would never Complete at a given point of time. Thus, sufficiency of funds becomes absolutely necessary when speaking of achieving Development.
- From the analysis of Independent T test on satisfaction based on Gender revealed that satisfaction level between male and female did differ significantly towards basic amenities except for housing, sanitation and street electrification. Perhaps, this is

evident from the fact that strategic decisions of the family are usually taken by male agreeable by female as well and such decisions are closely related to housing and sanitation. When the opinions of both the Gender flow in the same direction, then it is obvious to reflect the same level of satisfaction with respect to the housing, sanitation and electrification schemes. From this, the researcher can take a cue that both Genders tend to display similar level of satisfaction towards Housing schemes, Sanitation and Electrification. Developmental schemes of this type must be provided keeping in focus, the specific rural area and not the Gender wise preferences.

- As far as the use of funds is concerned, Analysis of Variance (ANOVA) was found to be most suited tool for determining the significant difference among the age group. The study revealed that Age does have an impact on the opinion of respondents on Utilisation of funds for development. It is evident that the more the funds are used, the better will be the Development. However, the DMRT revealed that the opinion differed on the respondents who were super senior in age. That could be because, with age, people experience a lot of things and would have also seen the pace of Development happening in and around their region. Thus, if a very aged person has seen good growth in his region on basic amenities, he would opine that the funds have been well utilised while a very elderly respondent who would have seen a bad state of handling funds for development might not opine good about the Developmental aspects. What they have seen through their life, they would generalise and post their opinion.

- From the inputs provided by the respondents for the Secondary data analysis on Sufficiency of funds for rural road development, it was quite natural to find that a mixed response was given for this as some felt that the Government is not providing sufficient funds for roads for their respective Gram Panchayats while some would find it sufficient. This mixed response is natural because the schemes for rural roads development funding will be different in Quantum of money to different regions owing to various factors/reasons (reasons probably could be geographic area, scope for industrialization, population density, political influence etc.) Thus, researcher feels that receiving a mixed response for this topic is appropriate.

- As regards rural electrification is concerned, majority of the respondents have expressed insufficiency of funding from the Government.

- The study on the data with respect to growth of water connections reflected a steady increase over the years -overall between 13 to 22% in the last 5 years which is a good sign of development.
- From the data on health and sanitation funding, it has been found that the funding on sanitation programs have been appropriately used, but not optimally. Sanitation facility is most significant as it directly affects the overall health of an individual. Thus, the money provided for this facility must be properly used to provide, maintain, ensure healthy environment.
- From the data analysed on the Gram Vikas Yojana, it can be felt that the Yojana has a great potential of reaching out to villages for Development. If money sanctioned for the wide variety of Developmental schemes is utilized properly, then it can create a lot of Developmental milestones for every village that it touches upon. Also there is a significant need of speeding up the project work without affecting the quality. The developmental activities conducted by the Government should be of the best quality.
- Majority of the respondents have accepted the presence of Political pressure on rural funding. This would mean in both the ways i.e. presence of political pressure for funding the projects of their influential regions and or non-funding of projects for the areas restricted based on the political pressure. Since more than 50% of the respondents agreed to this Statement, it can be found that Political pressures can be one of the major hurdles for the funding projects and relatively, the development of specific regions.
- From the opinions received from the respondents on whether Rural infrastructure development can have a positive impact or not, majority of them (33%) did agree to a great extent to this statement. This clearly indicates that the people are well aware that development can bring positive and better changes to their society and that they should be supporting the phases of development whenever the situation arises.
- From the Multiple Regression analysis conducted, it was inferred that variables chosen for the study does have an influence on the Dependent variable "Development". The independent variables directly relating to awareness and satisfaction of Basic amenities such as Water, Electricity, Housing, Health and Sanitation were influencing the Development. It can also be inferred that the extent of awareness and level of satisfaction towards these Basic amenities can have an

influence on Development. Thus, the scholar has been able to understand the fact that if a locality yearns for Development, it can be possibly achieved by focussing on enhancing the awareness and creating higher satisfaction to the residents of that locality. At present, there is an increased role of the Government authorities to focus on not just providing the Basic amenities but also create awareness on the same in the minds of the residents. With increased decentralised management by the Government authorities, achieving highest level of awareness through local administrative platforms or through publicity, health care workers and other modes is possible. Getting better and better over the years with consistent efforts on providing the Basic infrastructural facilities, together with raising awareness on the availability of these amenities is the need of the hour. With increased awareness and enhanced level of satisfaction, the expected Development is achievable.

- The results of the analysis done on Awareness towards various Housing schemes clearly indicated that there is difference in the level of Awareness among the respondents towards various schemes on Housing. The popular one among them was the Basava Vasathi Yojana while other schemes are not so popular. If the Government wishes to enhance the utility of these schemes among the right beneficiaries, then it has to implement plans to raise awareness on these Housing schemes. The respondents have been poorly aware of these Housing schemes owing to lack of suitable awareness campaigns.

- Several statements on the satisfaction level of water supply schemes reflected that there were no negative remarks on aspects such as cleanliness, maintenance of pipes, fees, responsiveness by officials etc. while the low level of satisfaction lied in the use and availability of funds for water schemes and regularity of the supply.

- The awareness level on rural electrification schemes was very low among the respondents and as a result, the level of satisfaction towards the same was poor especially in the matters such as responsiveness of officials for complaints, funds usage and availability. Electricity forms an inevitable part of every resident's living, thus it is the highest responsibility of the authorities to ensure safe and continuous supply of electricity to influence the development of the area.

- As regards the awareness towards Health and Sanitation, the Swachh Bharat Abhiyan was a show stealer as found majorly popular among the respondents while all other

schemes were not so popular. It has been very evident how Swachh Bharat Abhiyan created awareness waves in the minds of people of all age groups due to its huge promotional activities. This clearly indicates that any schemes that is popularised in large scale and on serious note, such schemes tend to become successful.

- The level of satisfaction of the respondents on these Health schemes indicated low for aspects like educating people towards problems of plastics, real implementation of the scheme, performance of panchayat officials towards the scheme, and the development that really took place. While responses were positive for timely collection of waste, availability of funds etc., there is a dire need to tackle the problems relating to efficient waste management and educating the public against the use of plastics and also encouraging the panchayat officials to actively participate in the scheme programs.

Suggestions based on findings of the study

- Government and GPs have to motivate rural people to attend every Grama Sabha meeting in order to ensure maximum participation in the GP activities. When maximum people attend the Grama Sabha meetings, awareness regarding various rural infrastructure funding schemes would be created and majority people try to get maximum benefit from every Government schemes. As a result transparency in all GP activities would increase and corruption might decrease. This would lead to growth and development.
- With regard to various housing schemes, beneficiaries are not satisfied with sanctioned amount under every housing scheme. Amount given under housing scheme was not sufficient to put foundation for the construction of house. It is very important that Government should provide at least Rs.5 lakhs under every housing scheme. So that maximum houseless people would construct quality houses.
- Majority of housing beneficiaries have visited GPs for more than 5times to get the fund sanctioned for the construction of house. This would affect other houseless families not to apply for the Government housing schemes as they have to repeatedly visit GPs for the sanctioning of housing schemes. Suggestion to this problem is Government should identify all eligible houseless families and sanction the housing schemes for the needy without any restrictions.

- Regarding conditions and problems of road facilities in the villages Government should take special interest to provide all weather roads in order to develop rural connectivity in the better way. Majority of respondents agreed that rural roads are dusty during summer, muddy and water logged during rainy season, pot holes and no drainage. It is important to sanction funds for construction of drainage facility when funds are sanctioned for construction, maintenance and renovation of roads. Sanctioning funds for creating road facilities without drainage will lead to spoilage of funds for the maintenance of roads. Roads with drainage facilities are more durable than roads without drainage facilities. Drainage facility will reduce the funds for maintenance of roads.

- According to majority of respondents immediate actions were not taken for repairing roads when complaint was lodged. The reasons may be limited funds, lack of interest among GP officials, lack of support from villages etc. It is suggested that Government should see there would be sufficient funds for the maintenance of roads and insist all the GPs to take immediate action for repairing the roads when complaints are lodged.

- For every household drinking water facility is inevitable and essential. As per the data collected, 60% respondents have not utilised the drinking water supply facility from GPs. The reasons may be open well facility at home or public wells, irregularity in water supply by GPs etc. government should focus on DWS in the rural areas especially in summer season. And also come up with permanent solution for DWS problems.

- All the GPs are charging fee for providing DWS facility to rural households. It is not the question whether GPs charge reasonable fee for DWS are not, but it is the responsibility and duty of the government to provide cleaned piped drinking water facility to every household for free of cost. Therefore, government should take measure in this regard.

- Majority of respondents said that more number of street electricity lights are available in the villages when compared to Solar Lights. GPs have to install more solar lights than electricity lights so that Government can focus on Green energy and reduce global warming.

- As per the data collected from the GPs and the respondents all the streets are not electrified in the villages. In order to electrify every street in the villages, GP officials

and members should more interest and more importantly government should take measures to provide sufficient funds towards RSE.

- Around 50% of GPs are not collecting solid and liquid waste from rural areas and also not providing bags for segregating the waste. There are the direct relationships between increase in cleanliness and increase in health and vice-versa. GPs are still lacking in providing health and sanitation facilities. In regard to Health and sanitation, Government should creates awareness among rural people about its importance for healthy environment and healthy living. Negligence on the part of common man regarding disposing solid and liquid waste will influence on health of the people.

Conclusion

The researcher has concentrated on five rural infrastructure components: housing, roads, DWS, RSE, and H&S, based on an extensive analysis of the literature on rural infrastructure funding schemes and their ability to alleviate poverty and improve living standards. The Indian government, together with state governments, is working hard to bridge the divide between rural and urban areas. India's government has been investing in rural infrastructure since independence.

Taking into account all of these initiatives, this study was carried out with the objective of analysing various rural infrastructure funding programmes in Udupi District in terms of awareness, utilisation, satisfaction, fund sufficiency, and progress. In terms of rural infrastructure funding schemes, the numerous important insights presented in this thesis should assist policymakers, the government, GPs, and rural dwellers. The shortage of infrastructure investment in rural areas is due to GPs' limited resources, the uncertainty surrounding revenue collection, and the project's high perceived risk. These factors make it difficult to attract private capital to these areas. Governments must carefully assess which initiatives will have the greatest economic and social multiplier impacts, and then develop project pipelines appropriately.

Only financially viable infrastructure should be funded by the government. Projects that do not match this criterion will use a disproportionate amount of public funds while failing to provide value for money to stakeholders. Households in rural regions of Udupi district were found to be extremely unsatisfied with the amount sanctioned under various housing initiatives.

In regard to sufficiency of funds it was found that funds were insufficient invariably for different rural infrastructure funding schemes. The success and failure of every government scheme depend upon creating awareness and its effective implementation. Therefore, governments should come up with new strategies of creating awareness and implementation in order to make all infrastructure funding schemes more effective in the study area as well as entire country. Thus, rural infrastructure funding schemes will definitely lead to an overall development of rural community and economic development of our nation if such schemes are implemented through proper transparent channel. For the success of government efforts towards rural infrastructure development, people's participation, awareness, access, sufficiency of funds and satisfaction becomes inevitable.

Areas for future research

The study's major objective was to examine rural infrastructure funding programmes and measure rural regions' awareness, utilisation, satisfaction, and progress in the Udupi District. As a result, the current study will serve as a catalyst for future research. Further research could be done in the following areas:

- The current study looks at five types of infrastructure funding: housing, roads, drinking water supply, street electrification, and health and sanitation. To determine the coverage, awareness, progress, utilisation, satisfaction, and development of each of the infrastructure funding components, a full research study on each component could be done.
- Demand for infrastructure funds would differ from region to region, hence it is important to identify the types of infrastructure funds required region wise and then implement the desired strategies accordingly. These studies could help the governments to understand the grass root problems and to take measures required for region wise development.
- This study is limited to the Udupi District; however, studies on various rural infrastructure funding schemes can be conducted in other districts. Comparative studies in terms of funding and development can be conducted between districts.
- The study considers only government infrastructure funding schemes, so studies pertaining to private infrastructure funding schemes could be undertaken to evaluate rural infrastructure development.

- The performance index could not be calculated due to a lack of data. Other academics can concentrate on developing a performance index, which is a yardstick for measuring growth indicators.

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